

DESCRIPTIONS OF SOME NEW ARANEIDÆ OF NEW
SOUTH WALES. No. 2.

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(Plate III.)

Family EPEIRIDÆ.

This family has a wide geographical range, and representatives of it are met with in countries varying greatly in temperature. They are, for the most part, sylvan in their choice of locality, though many of them construct their orbital snares under eaves of buildings, verandahs, and other prominent and exposed positions. Both as regards size, form, structure and consistency of their integument there are many interesting and remarkable contrasts, in which respect the Australian species present some notable examples. Many of the *Epëiridæ* are also remarkable for their bright and gorgeous colours, of which the genera *Epëira*, *Argiope*, *Nephila*, *Arcys*, &c., supply most interesting types.

Of the species described in the present paper, all are representatives of *Micro-Araneidæ*, and with the exception of *Anepsia crinita*, each is endowed in life with more or less bright and striking colours.

Genus EPEIRA, Walck.

EPEIRA DIVERSICOLOR, sp.nov.

(Plate III. figs. 1, 1a, 1b.)

♀. Cephalothorax, 1.3 mm. long, 1 mm. broad; abdomen, 2 mm. long, 1 mm. broad.

Cephalothorax: dark glossy mahogany-brown, glabrous. *Caput* somewhat elevated, rounded on sides and upper part; normal

grooves and indentations indistinct. *Clypeus* broad, moderately convex, and with a strong deep indentation posteriorly. *Marginal band* narrow, dull black, sparsely furnished with minute black hairs.

Eyes of pearl-grey lustre; the four intermediate ones are seated on a prominence, forming a square, or nearly so, and are the largest of the eight; the lateral pairs are much the smallest, and are placed obliquely on small tubercles, but are not contiguous.

Legs long, moderately strong, pale yellow with dark annulations at joints, and each furnished with long coarse blackish hairs and small spines; relative lengths, 1, 2, 4, 3.

Palpi long, strong; the first, second, third and fourth joints pale yellowish; fifth yellowish-brown at base, but deepening to dark brown at tips; similar in armature to legs.

Falces glossy mahogany-brown, powerful, articulated on inclined plane, furnished with a few short yellowish sessile hairs, and armed with teeth on the inner surface.

Maxillæ concolorous, short, strong, slightly concave at apex.

Labium concolorous, short, broad, and rounded off at apex.

Sternum elliptical, dark brown, sparsely furnished with short hoary hairs.

Abdomen ovate, projecting over base of cephalothorax, convex above, furnished with long white and a few short black hairs; colour ochreous-yellow, with large, prominent, dark-brown patch towards anterior extremity, the outer margin of which is ochreous-red; there are also two narrow and somewhat sinuous longitudinal ochreous-red stripes commencing towards the centre and terminating at the abdominal extremity; the space between these stripes is ochreous-yellow, mottled with reddish-brown; besides these there are also four large black spots near the middle, and a few exceedingly minute ones distributed over the upper surface. The sides of the abdomen are furnished with curved oblique markings, of a dark brown colour, which unite near the upper surface; the colour of the spaces in between these is ochreous-yellow, mottled with dark brown. Inferior surface convex, black, with a rather large patch of bright yellow between spinnerets and epigyne.

Epigyne a long transverse, curved slit, curvature directed forwards; upper lip with a tolerably strong indentation at centre.

Hab.—Sydney.

EPEIRA PULCHRA, sp.nov.

(Plate III. figs. 2, 2a, 2b, 3, 3a.)

♀. Cephalothorax, 1·5 mm. long, 1 mm. broad; abdomen, 2 mm. long, 2 mm. broad.

Cephalothorax yellow-brown, sparsely furnished with a few long hoary hairs. *Caput* elevated, rounded on sides and upper part, normal grooves and indentations distinct; ocular area furnished with a few long, coarse, hoary hairs. *Clypeus* broad, convex, darker than cephalic eminence. *Marginal band* narrow, nearly black, fringed with short black hairs.

Eyes arranged as in *E. diversicolor*.

Legs long, strong, pale yellow, with dark annulations, and furnished with long strong yellowish hairs, and short strong spines; relative lengths, 1, 2, 4, 3.

Palpi concolorous, long, strong, and similar in armature to the legs.

Falces yellowish, rather darker at base and extremities, furnished with a few short hairs, and armed with teeth on the inner surface.

Maxillæ yellowish; short, strong, broad, convex, inclined inwards; thickly fringed with short strong hairs at inner margin of apex, a few short black ones on outer extremity.

Labium concolorous, coniform, furnished with fringe of short blackish hairs at apex.

Sternum yellow-brown, shield-shaped, broad, sparsely clothed with long white hairs.

Abdomen broad-ovate, projecting over base of cephalothorax, convex, furnished with a few long strong hairs; a large, dark, leaf-like mark, mottled with bright yellow, whose lateral markings are sinuous, and which tapers to the spinnerets, commences nearly midway, and extends along the middle; a broad bright yellow patch, delicately marked with irregular brown tracings, and also divided by a rather broad median dark brown band, is seated at

anterior extremity; sides and inferior surface mottled with patches of black and bright yellow.

Epigyne convex, broad, dark brown; *branchial opercula* dark brown also.

Hab.—Sydney.

♂. Cephalothorax, 1 mm. long; abdomen, 1·3 mm. long.

The male differs but little from the female in general appearance. The *cephalic eminence* is rather darker, as is also the *clypeus*, which towards the marginal band is nearly black. The legs are a paler yellow than those of the ♀, and the annulations somewhat darker.

Palpi short, similar in colour to the legs, furnished with long hairs, and complicated.

Falces yellow. *Maxillæ*, *labium*, and *sternum* darker than those of the female.

Abdomen broadly-ovate, projecting over base of cephalothorax; similar in colouration to the female, but the yellow patch at anterior extremity is furnished with two rather large dark brown spots, and is not divided with a median band as in the ♀ example.

Hab.—Sydney.

EPEIRA RUBRIPUNCTATA, sp.nov.

(Plate III. fig. 4.)

♀. Cephalothorax, 2 mm. long, 1·5 mm. broad; abdomen, 2·5 mm. long, 2 mm. broad.

Cephalothorax yellowish, somewhat compressed before. *Caput* elevated, rounded on sides and upper part; normal grooves and indentations distinct. *Clypeus* yellowish, faintly suffused with red at broadest part, convex, furnished with short yellowish hairs. *Marginal band* narrow, rather dark, fringed with short yellowish hairs. *Cephalic segment* deep reddish-brown at base, becoming gradually lighter towards apex, which is light reddish-brown at summit and pale yellow laterally, furnished with a few long strong coarse hairs; there is also a fringe of short yellowish hairs in front and below ocular area.

Eyes of an opaline tint ; the four intermediate eyes seated on a prominence, nearly forming a square ; the two anterior ones are rather the widest apart, and are the largest of the eight ; the eyes of each lateral pair are placed obliquely on a small tubercle, but are not contiguous.

Legs long, moderately strong, yellow-brown, trochanters and tibiae of all four annulated dark brown ; relative lengths, 1, 2, 4, 3 ; each is furnished with long coarse hairs and strong spines.

Palpi long ; first, second, and third joints pale yellowish, fourth and fifth rather darker ; armature similar to that of legs.

Falces strong, yellowish, furnished with a few short strong black bristles, and armed with teeth on the under side.

Maxillæ short, strong, rounded at extremity, furnished with a few rather long and strong black hairs ; yellowish, suffused with bistre.

Labium concolorous, short, broad, rounded off at apex.

Sternum concolorous, broad, shield-shaped, sparingly clothed with hairs.

Abdomen ovate, outline somewhat sinuous, projecting over base of cephalothorax, moderately convex above, furnished with a few short white hairs ; colour, silvery-white, dotted over with numerous small red spots, besides which there are six large spots of a reddish-brown colour, placed in three rows ; those of the first row are somewhat the largest of the six and the widest apart, and those of the third row the smallest and closest together ; there are also two large sinuous black lateral bands on superior surface which are pointed, the points being directed outwards ; inferior surface black, sides pale yellowish with black flecks.

Epigyne broad, moderately convex, furnished with a long articulated membranous process, which is directed forwards ; colour yellowish.

Hab.—Manly.

EPEIRA SINUOSUS, sp.nov.

(Plate III. fig. 6.)

♀. Cephalothorax, 2 mm. long, 1.5 mm. broad ; abdomen, 3 mm. long, 2 mm. broad.

Cephalothorax yellowish, hairy. *Caput* elevated, rounded on sides and upper part, normal grooves distinct. *Clypeus* convex, thickly furnished with long hoary hairs; colour yellowish, a dark brown patch in centre, sides suffused with orange-red. *Marginal band* narrow, anterior portion dark brown, latter portion pale yellow. *Cephalic segment* dark brown at base, apex and sides yellow-brown, furnished with short hoary hairs.

Eyes similar to those of *E. rubripunctata*.

Legs long, moderately strong, yellow, with dark brown annulations, furnished with coarse hairs and short strong spines; relative lengths, 4, 1, 2, 3.

Palpi long and similar in colour and armature to legs.

Falces hairy, outer margins yellow-brown, front and inner margins nearly black; a row of teeth along margins of each falx on underside.

Maxillæ short, strong, somewhat club-shaped, black, furnished with a few short black hairs.

Labium concolorous, short, broad at base, rounded off at apex.

Sternum concolorous also, shield-shaped, sparsely furnished with short hairs.

Abdomen ovate, outline sinuous, elevated in front, projecting over base of cephalothorax, moderately convex, furnished with short hoary hairs; four somewhat deep punctures, forming a square at middle of superior surface; fulvous spotted with red; posterior extremity dark; there is also a large patch of dark brown in front, the border of which is tinged with red; inferior surface dark brown; a long articulated membranous flesh-coloured process, directed forwards, and similar to *epigyne* of *E. rubripunctata* is in connection with the prominent sexual organ.

Hab.—Sydney.

EPEIRA HAMILTONI, sp.nov.

(Plate III. figs. 7, 7a.)

♀. Cephalothorax, 2 mm. long, 1.5 mm. broad; abdomen, 3 mm. long, 2 mm. broad.

Cephalothorax yellow-brown, furnished with a few rather long coarse yellowish hairs. *Caput* elevated and rounded on sides and

upper part, normal grooves and indentations distinct, pale yellow at apex. *Clypeus* broad, convex, a strong deep depression at posterior extremity; yellow-brown with dark lateral markings radiating from near the centre. *Marginal band* narrow, dark, and furnished with a fringe of dark minute hairs.

Eyes glossy black, elevated on rings; four intermediate eyes largest of group, forming a square or nearly so; those of each lateral pair seated on tubercles, and nearly contiguous.

Legs long, moderately strong, yellow-brown with dark annulations at joints; relative lengths, 1, 2, 4, 3; furnished with strong coarse hairs and short black spines; each *tarsus* terminates with four curved claws, the three superior ones of which are much the longest and strongest, and have a row of teeth near their base on the underside.

Palpi long, strong, similar in colour and armature to the legs.

Falces yellow-brown, furnished with a few strong coarse bristles; a row of teeth along margins of each falx on underside.

Maxillæ pale yellow, short, strong, furnished with short yellowish hairs.

Labium concolorous, broad at base, narrow and rounded off at apex.

Sternum cordate, glossy black, furnished with a few yellowish hairs.

Abdomen ovate, moderately convex, projecting over base of cephalothorax, furnished with short yellowish sessile hairs; colour of superior surface dark brown, pale yellowish laterally; a large leaf-like design, mottled with pale yellow and dark brown, whose lateral margins are dark brown and sinuous, and which tapers to the spinnerets, extends along the middle; inferior surface dark brown with yellowish lateral patches, and furnished with a few short yellowish sessile hairs.

Epigyne a long transverse slit, with a short, bluntish dark-coloured membranous process directed forwards.

Hab.—Guntawang, near Mudgee.

I have much pleasure in dedicating this species to my esteemed correspondent, Mr. A. G. Hamilton, of Mount Kembla, to whose

kindness I am indebted not only for the specimen herein described but for other interesting types from the same neighbourhood.

Genus ANEPSIA, Koch.

ANEPSIA CRINITA, sp.nov.

(Plate III. figs. 5, 5a.)

♀. Cephalothorax, 2.5 mm. long, 2 mm. broad; abdomen, 3 mm long, 2 mm. broad.

Cephalothorax yellow-brown, striated with bistre, and clothed with long coarse yellow hairs. *Caput* elevated, convex; normal grooves and indentations distinct. *Clypeus* broad, moderately convex, with a strong deep indentation posteriorly. *Marginal band* narrow, dark, fringed with short black hairs.

Eyes dark; the four intermediate ones seated on a somewhat quadrangular protuberance, forming a square, are of equal size, and much the largest of the eight; the eyes of each lateral pair minute, placed obliquely on a small tubercle, and not contiguous.

Legs long, moderately strong, yellow-brown, with dark brown annulations, hairy, and furnished with moderately long and strong spines; relative lengths, 1, 2, 4, 3.

Palpi long, strong, and similar in colour and armature to the legs.

Falces yellow-brown, articulated on inclined plane, clothed with yellowish hairs which are thickest at base and inner margins; a row of teeth along margins of each falx on the underside.

Maxillae short, strong, broadest at apex, which is rounded off; yellowish, furnished with hairs and a few short rather strong spines.

Labium concolorous, short, broad, and rounded off at apex.

Sternum broad, shield-shaped, dark brown approaching black, sparsely furnished with short yellowish sessile hairs.

Abdomen broad-ovate, somewhat compressed towards posterior end, projecting over base of cephalothorax, dull dark brown, mottled with a few yellowish flecks; a large leaf-like mark, the lateral margins of which are sinuous, and which tapers towards

the spinners, faintly visible; superior surface thickly clothed with short dark hairs; there is also a rather thick fringe of long strong hoary hairs at anterior end, and which project over base of cephalothorax; sides and inferior surface thickly furnished with strong tawny hairs.

Hab.—Manly.

EXPLANATION OF PLATE.

PLATE III.

- Fig. 1.—*Epëira diversicolor*.
 1a.—Profile view of spider.
 1b.—Epigyne.
- Fig. 2.—*Epëira pulchra*, ♀
 2a.—Epigyne.
 2b.—Eyes.
- Fig. 3.—*Epëira pulchra*, ♂
 3a.—Maxillary palpus of ♂ as seen from above.
- Fig. 4.—*Epëira rubripunctata*.
- Fig. 5.—*Anëpsia crinita*.
 5a.—Eyes.
- Fig. 6.—*Epëira sinuosus*.
- Fig. 7.—*E. hamiltoni*.
 7a.—Epigyne.